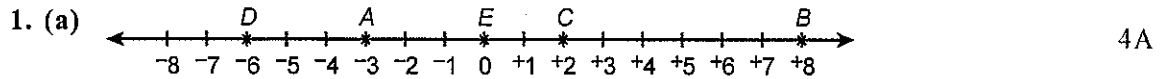
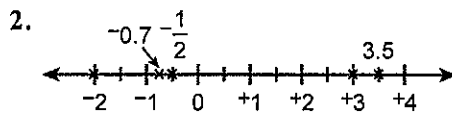


Solution



(b) $-6 < -3 < 0 < 2 < 8$ 4A



$\therefore \underline{\underline{3.5 > 3 > -\frac{1}{2} > -0.7 > -2}}$ 8A

3. (a) $(+3) + (-2) - (-7) = 3 - 2 + 7$ 3M
 $= 1 + 7$
 $= \underline{\underline{8}}$

(b) $(-2.6) + (-3) - (-9.4) + (-1) = -2.6 - 3 + 9.4 - 1$ 3M
 $= -5.6 + 9.4 - 1$
 $= 3.8 - 1$
 $= \underline{\underline{2.8}}$

(c) $(-7)(+3)(-9) = +(7 \times 3 \times 9)$ 3M
 $= \underline{\underline{189}}$

(d) $(-2.4) \div (+3) \times (+8) \div (-2) = \frac{(-2.4)(+8)}{(+3)(-2)}$ 3M
 $= \frac{-(2.4 \times 8)}{-(3 \times 2)}$
 $= \underline{\underline{3.2}}$

4. The final location $= (+15 - 35)$ cm 3M
 $= -20$ cm

\therefore The final location of the ant was 20 cm to the west of A. 2A

5. $\therefore +\$12\,000 - \$4\,300 - \$1\,200 + \$25\,000$ 5M
 $= +\$31\,500$
 \therefore The company gained \$31 500 in that year. 2A
6. (a) Marks obtained by Johnson from the correct answers = 15×10 marks 3M
 $= \underline{150 \text{ marks}}$ 3A
- (b) Marks lost by Johnson from the wrong answers = 12×5 marks 3M
 $= \underline{60 \text{ marks}}$ 3A
- (c) Number of questions gave up = $\frac{70 - (150 - 60)}{-2}$ 5M
 $= \frac{70 - 90}{-2}$
 $= \underline{10}$
7. (a) (i) The final location of the rabbit = $[(+20) \times 3 + 0 \times 1 + (-15) \times 2]$ m 5M
 $= (+60 - 30)$ m
 $= \underline{+30 \text{ m}}$
- (ii) The final location of the tortoise = $(+6) \times 6$ m 3M
 $= \underline{+36 \text{ m}}$
- (iii) $\therefore +36 > +30$ 2M
 \therefore The tortoise was further away from the starting point. 2A
- (b) After 6 hours, the distance between the rabbit and the tortoise = $(36 - 30)$ m 2M
 $= \underline{6 \text{ m}}$